



# EVIDENCE SYNTHESIS IRELAND

## Introduction to Systematic Reviews (Online)

### Background:

Health care policy and practice decisions should be based on a synthesis of the global body of evidence rather than relying on individual studies. Cochrane Ireland and Evidence Synthesis Ireland promote evidence-based healthcare policy and practice by supporting high-quality, relevant systematic reviews of the effects of interventions and other synthesised research evidence.

### Aim:

This workshop provides authors, at the beginning of the systematic review process, with a clear understanding of how systematic reviews of the effects of interventions are planned and conducted. It offers an insight into the development of a protocol, introducing participants to methodology, search methods, data extraction, risk of bias assessment and meta-analysis. While the focus is on systematic reviews of the effects of interventions, the principles discussed are likely to be useful to inform steps and approaches in other types of reviews.

### Learning outcomes:

In this course participants will be enabled to:

- Understand the basic principles of a systematic review of the effects of interventions
- Identify the scope of their review
- Understand search methods and apply these methods to their search strategy
- Apply the criteria for selecting studies
- Understand the principles of creating a data collection form and data extraction
- Understand the principles of risk of bias assessment
- Understand principles of heterogeneity and understand the methods for assessing and addressing it
- Attain a basic understanding of principles of meta-analysis

### Date:

**30th & 31st January,  
4th & 5th February 2025**

### Time:

**10:00 – 13:00 / 13:30**

### Skill Level:

**Introductory**

### Facilitators:

**Prof. Declan Devane**

Professor of Health Research Methodology, University of Galway, Director, Evidence Synthesis Ireland, & Cochrane Ireland.

**Ciara Gleeson**

Clinical Specialist Physiotherapist, Respiratory Assessment Unit, St. James's Hospital, Dublin.

**Dr. KM Saif-Ur-Rahman**

Research Fellow, University of Galway, Senior Research Methodologist, Evidence Synthesis Ireland.

**Dr Dominic Agyei Dankwah**

Senior Assistant Librarian and ESI Fellow, University of Health and Allied Sciences, Ho, Ghana

### Places:

**25 places available for individuals who are resident on the island of Ireland**

### Fee:

**General €150**

**Student €80**

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## Target Audience:

Healthcare professionals, academics, researchers, policy makers and other decision makers, and Evidence Synthesis Ireland fellows who have identified a systematic review of effects of interventions topic and are ready to begin working on their protocol.

## Teaching Strategies:

The workshop will consist of a mixture of short presentations led by members of the Evidence Synthesis Ireland and Cochrane Ireland teaching faculty, covering each of the stages of developing a systematic review protocol, small group activities and plenary discussions, providing participants with the opportunity to develop and refine their protocol. Although focusing on systematic reviews of the effects of interventions, the principles are likely to apply to other review types. This course will include blended learning with two months free access to Cochrane Interactive Learning self-directed learning modules, a number of which will be required study prior to the workshop. The number of participants for the course is limited to 25.

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### Course timetable

Day 1 – 30th January 2025	
Pre-learning: Have completed below modules from Cochrane Interactive Learning Module 1: Introduction to conducting systematic reviews Module 2: Writing the review protocol Module 3: Searching for studies	
10:00	Welcome, introduction of presenters
10:15	Defining a review question – defining objectives and creating a PICO (population, interventions, comparators, outcomes)
10:45	Practical exercise with PICO development
11:00	Practical exercise feedback
11:15	Break
11:30	Writing a protocol
12:00	Identifying search terms and searching for relevant studies in a systematic way
12:30	Practical exercise: developing a search strategy
12:45	Practical exercise feedback
13:00	Close

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### Course timetable

Day 2 – 31st January 2025	
<b>Pre-learning:</b> Have completed below modules from Cochrane Interactive Learning <b>Module 4:</b> Selecting studies and collecting data <b>Module 5:</b> Introduction to study quality and risk of bias	
10:00	Recap and questions on Day 1
10:30	Selecting studies
11:00	Break
11:15	Practical exercise : assessing eligibility
11:45	Practical exercise feedback
12:15	Assessing risk of bias (2.0)
13:00	Close

  

Day 3 – 4th February 2025	
<b>Pre-learning:</b> Have completed below module from Cochrane Interactive Learning <b>Recap on Module 5:</b> Introduction to study quality and risk of bias	
10:00	Recap and questions on Day 2
10:30	Practical exercise on risk of bias
11:00	Break
11:15	Practical exercise feedback
11:45	Data extraction and management; different types and formats of outcome data
12:15	Practical exercise on data collection/extraction and management
12:35	Practical exercise feedback & open Q&A
13:00	Close

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## Course timetable

Day 4 – 5th February 2025	
Pre-learning: Have completed below module from Cochrane Interactive Learning Module 6: Analysing the data	
10:00	Recap and questions on Day 3
10:30	Analysis methods for binary data (odds ratio, risk ratio)
11:00	Analysis methods for continuous data (mean difference, standardised mean difference)
11:30	Break
11:45	Introduction to meta-analysis
12:30	Exploring heterogeneity; subgroup analysis and sensitivity analysis
13:00	Discussion and questions
13:30	Close

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